

Fe

Notice of Allowability	Application No.	Applicant(s)	
	10/702,574	NAKAJIMA ET AL.	
	Examiner	Art Unit	
	David Nhu	2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/10/05.
2. ☒ The allowed claim(s) is/are 1-6 and 17-22.
3. ☒ The drawings filed on 07 November 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |



EXAMINER'S AMENDMENT

1. Applicant's election of claims 1-6, 17-22 is acknowledged. Because Applicant did not distinctly and specifically point out the supposed error in the restriction requirement,

the election has been treated as an election without traverse (MPEP § 818.03(a)).

Applicant have the right to file a divisional application covering the subject matter of the non-elected claims 7-16, 23-30.

The traversal is on the ground(s) that see the election paper. This is not found persuasive because the fields of search for method' and device claims are NOT coextensive and the determinations of patentability of method and device claims are different, that is process limitations and device limitations are given weight differently in determining the patentability of the claimed inventions. Also, the strategies for doing text searching of the device claims and method claims are different. Thus, separate searches are required.

The requirement is still deemed proper and is therefore made **FINAL**.

2. An examiner's amendment to the record appears below. Should the change and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Cancel claims 7-16, 23-30.

REASONS FOR ALLOWANCE

3. Claims 1-6, 17-22 are allowed.

4. The following is an examiner's statement of reasons for allowance: None of the references of record teaches or suggests a cited in claims 1, 17, 19: a wiring layer formed on the substrate, wherein the wiring layer includes a lower electrode, a magneto-resistive element formed on the lower electrode and configured to include an insulation barrier layer, at least one contact layer stacked on the magneto-resistive element, and an upper wiring connected to the contact layer, and a taper angle of a side surface of the magneto-resistive element including the insulation barrier layer, relative to a bottom surface of the magneto-resistive element, is about 60 degrees or less (as cited in claim 1); a wiring layer formed on the substrate, wherein the wiring layer includes a lower electrode, a magneto-resistive element formed on the lower electrode and configured to include an insulation barrier layer, at least one contact layer stacked on the magneto-resistive element, and an upper wiring connected to the contact layer, and the magneto-resistive element has an inclined side surface which is cleaned by ion beam etching (IBE) after the magneto-resistive element is formed by IBE (as cited in claim 17); ; a wiring layer formed on the substrate, wherein the wiring layer includes a lower electrode, a magneto-resistive element formed on the lower electrode and configured to include an insulation barrier layer, at least one contact layer stacked on the magneto-resistive element, and an upper wiring connected to the contact layer, and an insulation film, which is providing to cover an entirety of the magneto-resistive element after the magneto-resistive element is formed by IBE, is formed of a material that is more easily oxidizable than the lower electrode (as cited in claim 19);

Art Unit: 2818

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Hosotani (6,829,162 B2): Magnetic Memory Device and Manufacturing Method Thereof.

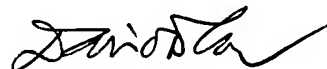
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Nhu, (571)272-1792. The examiner can normally be reached on Monday-Friday from 7:30 AM to 5:00 PM.

The examiner's supervisor, David Nelms can be reached on (571)272-1787.

The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956

David Nhu



April 4, 2005

DAVID NHU
PRIMARY EX